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AIR



LOCATING AND ESTIMATING AIR EMISSIONS FROM SOURCES OF BENZENE



Disclaimer

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EPA-454/R-98-011

TABLE OF CONTENTS

| <u>Section</u> | <u>Page</u> |
|--|-------------|
| LIST OF TABLES | x |
| LIST OF FIGURES | xvi |
| EXECUTIVE SUMMARY | xx |
| 1.0 PURPOSE OF DOCUMENT | 1-1 |
| 2.0 OVERVIEW OF DOCUMENT CONTENTS | 2-1 |
| 3.0 BACKGROUND INFORMATION | 3-1 |
| 3.1 NATURE OF POLLUTANT | 3-1 |
| 3.2 OVERVIEW OF PRODUCTION AND USE | 3-4 |
| 3.3 OVERVIEW OF EMISSIONS | 3-8 |
| 4.0 EMISSIONS FROM BENZENE PRODUCTION | 4-1 |
| 4.1 CATALYTIC REFORMING/SEPARATION PROCESS | 4-7 |
| 4.1.1 Process Description for Catalytic Reforming/Separation | 4-7 |
| 4.1.2 Benzene Emissions from Catalytic Reforming/Separation | 4-9 |
| 4.2 TOLUENE DEALKYLATION AND TOLUENE DISPROPORTIONATION PROCESS | 4-11 |
| 4.2.1 Toluene Dealkylation | 4-12 |
| 4.2.2 Toluene Disproportionation | 4-13 |
| 4.3 ETHYLENE PRODUCTION | 4-16 |
| 4.3.1 Process Description | 4-16 |
| 4.3.2 Benzene Emissions from Ethylene Plants and Benzene Recovery from Pyrolysis Gasoline | 4-32 |
| 4.4 COKE OVEN AND COKE BY-PRODUCT RECOVERY PLANTS | 4-36 |
| 4.4.1 Process Description | 4-36 |
| 4.4.2 Benzene Emissions | 4-46 |

TABLE OF CONTENTS, continued

| <u>Section</u> | <u>Page</u> |
|---|-------------|
| 4.5 METHODS FOR ESTIMATING BENZENE EMISSIONS FROM EMISSION SOURCES | 4-61 |
| 4.5.1 Process Vent Emissions, Controls, and Regulations | 4-62 |
| 4.5.2 Equipment Leak Emissions, Controls, and Regulations | 4-70 |
| 4.5.3 Storage Tank Emissions, Controls, and Regulations | 4-77 |
| 4.5.4 Wastewater Collection and Treatment System Emissions, Controls, and Regulations | 4-82 |
| 4.5.5 Product Loading and Transport Operations Emissions, Controls, and Regulations | 4-85 |
| 5.0 EMISSIONS FROM MAJOR USES OF BENZENE | 5-1 |
| 5.1 ETHYLBENZENE AND STYRENE PRODUCTION | 5-2 |
| 5.1.1 Process Description for Ethylbenzene and Styrene Production Using Benzene Alkylation and Ethylbenzene Dehydrogenation | 5-3 |
| 5.1.2 Process Description for Ethylbenzene Production from Mixed Xylenes | 5-9 |
| 5.1.3 Process Description for Styrene Production from Ethylbenzene Hydroperoxidation | 5-10 |
| 5.1.4 Process Description for Styrene Production by an Isothermal Process | 5-12 |
| 5.1.5 Benzene Emissions from Ethylbenzene and Styrene Production via Alkylation and Dehydrogenation | 5-14 |
| 5.1.6 Control Technology for Ethylbenzene/Styrene Processes | 5-19 |
| 5.2 CYCLOHEXANE PRODUCTION | 5-20 |
| 5.2.1 Process Description for Cyclohexane Production via Benzene Hydrogenation | 5-21 |
| 5.2.2 Benzene Emissions from Cyclohexane Production via Benzene Hydrogenation | 5-23 |
| 5.2.3 Process Description for Cyclohexane Production via Separation of Petroleum Fractions | 5-24 |
| 5.2.4 Benzene Emissions from Cyclohexane Production via Separation of Petroleum Fractions | 5-26 |
| 5.3 CUMENE PRODUCTION | 5-26 |
| 5.3.1 Process Descriptions for Cumene Production by Alkylating Benzene with Propylene | 5-27 |
| 5.3.2 Benzene Emissions From Cumene Production | 5-34 |

TABLE OF CONTENTS, continued

| <u>Section</u> | <u>Page</u> |
|---|-------------|
| 5.4 PHENOL PRODUCTION | 5-35 |
| 5.4.1 Phenol Production Techniques | 5-39 |
| 5.4.2 Benzene Emissions from Phenol Production | 5-47 |
| 5.5 NITROBENZENE PRODUCTION | 5-49 |
| 5.5.1 Process Descriptions for Continuous Nitration | 5-49 |
| 5.5.2 Benzene Emissions from Nitrobenzene Production | 5-53 |
| 5.6 ANILINE PRODUCTION | 5-58 |
| 5.6.1 Process Descriptions for Aniline Production for Nitrobenzene | 5-58 |
| 5.6.2 Benzene Emissions from Aniline Production | 5-61 |
| 5.7 CHLOROBENZENE PRODUCTION | 5-62 |
| 5.7.1 Process Description for Chlorobenzene Production by Direct Chlorination of Benzene | 5-62 |
| 5.7.2 Benzene Emissions from Chlorobenzene Production | 5-67 |
| 5.8 LINEAR ALKYL BENZENE PRODUCTION | 5-70 |
| 5.8.1 Process Description for Production of LAB Using the Olefin Process | 5-70 |
| 5.8.2 Benzene Emissions from LAB Production Using the Olefin Process | 5-74 |
| 5.8.3 Process Description for Production of LAB Using the Chlorination Process | 5-74 |
| 5.8.4 Benzene Emissions from LAB Production Using the Chlorination Process | 5-78 |
| 5.9 OTHER ORGANIC CHEMICAL PRODUCTION | 5-80 |
| 5.9.1 Hydroquinone | 5-80 |
| 5.9.2 Benzophenone | 5-81 |
| 5.9.3 Benzene Sulfonic Acid | 5-81 |
| 5.9.4 Resorcinol | 5-81 |
| 5.9.5 Biphenyl | 5-82 |
| 5.9.6 Anthraquinone | 5-82 |
| 5.10 BENZENE USE AS A SOLVENT | 5-82 |
| 6.0 EMISSIONS FROM OTHER SOURCES | 6-1 |
| 6.1 OIL AND GAS WELLHEADS | 6-1 |

TABLE OF CONTENTS, continued

| <u>Section</u> | <u>Page</u> |
|--|-------------|
| 6.1.1 Description of Oil and Gas Wellheads | 6-1 |
| 6.1.2 Benzene Emissions from Oil and Gas Wellheads | 6-2 |
| 6.2 GLYCOL DEHYDRATION UNITS | 6-4 |
| 6.2.1 Process Description for Glycol Dehydration Units | 6-5 |
| 6.2.2 Benzene Emissions from Glycol Dehydration Units | 6-8 |
| 6.2.3 Controls and Regulatory Analysis | 6-13 |
| 6.3 PETROLEUM REFINERY PROCESSES | 6-14 |
| 6.3.1 Description of Petroleum Refineries | 6-14 |
| 6.3.2 Benzene Emissions from Petroleum Refinery Processes and Operations | 6-17 |
| 6.3.3 Controls and Regulatory Analysis | 6-28 |
| 6.4 GASOLINE MARKETING | 6-31 |
| 6.4.1 Benzene Emissions from Loading Marine Vessels | 6-34 |
| 6.4.2 Benzene Emissions from Bulk Gasoline Plants and Bulk Gasoline Terminals | 6-37 |
| 6.4.3 Benzene Emissions from Service Stations | 6-46 |
| 6.4.4 Control Technology for Marine Vessel Loading | 6-49 |
| 6.4.5 Control Technology for Gasoline Transfer | 6-53 |
| 6.4.6 Control Technology for Gasoline Storage | 6-53 |
| 6.4.7 Control Technology for Vehicle Refueling Emissions | 6-56 |
| 6.4.8 Regulatory Analysis | 6-58 |
| 6.5 PUBLICLY OWNED TREATMENT WORKS | 6-59 |
| 6.5.1 Process Description of POTWs | 6-59 |
| 6.5.2 Benzene Emissions From POTWs | 6-68 |
| 6.5.3 Control Technologies for POTWs | 6-69 |
| 6.5.4 Regulatory Analysis | 6-72 |
| 6.6 MUNICIPAL SOLID WASTE LANDFILLS | 6-72 |
| 6.6.1 Process Description of MSW Landfills | 6-73 |
| 6.6.2 Benzene Emissions from MSW Landfills | 6-74 |
| 6.6.3 Control Technologies for MSW Landfills | 6-80 |
| 6.6.4 Regulatory Analysis | 6-81 |
| 6.7 PULP, PAPER, AND PAPERBOARD INDUSTRY | 6-81 |
| 6.7.1 Process Description for Pulp, Paper, and Paperboard Making Processes | 6-82 |
| 6.7.2 Benzene Emissions from Pulp, Paper and Papermaking Processes . . . | 6-91 |

TABLE OF CONTENTS, continued

| <u>Section</u> | <u>Page</u> |
|----------------|--|
| 6.8 | SYNTHETIC GRAPHITE MANUFACTURING 6-93 |
| 6.8.1 | Process Description for Synthetic Graphite Production 6-94 |
| 6.8.2 | Benzene Emissions from Synthetic Graphite Production 6-97 |
| 6.8.3 | Control Technologies for Synthetic Graphite Production 6-99 |
| 6.9 | CARBON BLACK MANUFACTURE 6-99 |
| 6.9.1 | Process Description for Carbon Black Manufacture 6-101 |
| 6.9.2 | Benzene Emissions from Carbon Black Manufacture 6-104 |
| 6.10 | RAYON-BASED CARBON FIBER MANUFACTURE 6-105 |
| 6.10.1 | Process Description for the Rayon-Based Carbon Fiber Manufacturing Industry 6-106 |
| 6.10.2 | Benzene Emissions from the Rayon-Based Carbon Fiber Manufacturing Industry 6-107 |
| 6.10.3 | Controls and Regulatory Analysis 6-107 |
| 6.11 | ALUMINUM CASTING 6-107 |
| 6.11.1 | Process Description for Aluminum Casting Facilities 6-107 |
| 6.11.2 | Benzene Emissions From Aluminum Metal Casting 6-111 |
| 6.11.3 | Control Technologies for Aluminum Casting Operations 6-112 |
| 6.12 | ASPHALT ROOFING MANUFACTURING 6-112 |
| 6.12.1 | Process Description 6-114 |
| 6.12.2 | Benzene Emissions from Asphalt Roofing Manufacture 6-127 |
| 6.13 | CONSUMER PRODUCTS/BUILDING SUPPLIES 6-129 |
| 7.0 | EMISSIONS FROM COMBUSTION SOURCES 7-1 |
| 7.1 | MEDICAL WASTE INCINERATORS 7-1 |
| 7.1.1 | Process Description: Medical Waste Incinerators 7-2 |
| 7.1.2 | Benzene Emissions From Medical Waste Incinerators 7-7 |
| 7.1.3 | Control Technologies for Medical Waste Incinerators 7-7 |
| 7.1.4 | Regulatory Analysis 7-9 |
| 7.2 | SEWAGE SLUDGE INCINERATORS 7-10 |
| 7.2.1 | Process Description: Sewage Sludge Incinerators 7-11 |
| 7.2.2 | Benzene Emissions from Sewage Sludge Incineration 7-19 |
| 7.2.3 | Control Technologies for Sewage Sludge Incinerators 7-19 |
| 7.2.4 | Regulatory Analysis 7-25 |

TABLE OF CONTENTS, continued

| <u>Section</u> | <u>Page</u> |
|---|-------------|
| 7.3 HAZARDOUS WASTE INCINERATION | 7-25 |
| 7.3.1 Process Description: Incineration | 7-26 |
| 7.3.2 Industrial Kilns, Boilers, and Furnaces | 7-36 |
| 7.3.3 Benzene Emissions From Hazardous Waste Incineration | 7-37 |
| 7.3.4 Control Technologies for Hazardous Waste Incineration | 7-37 |
| 7.3.5 Regulatory Analysis | 7-39 |
| 7.4 EXTERNAL COMBUSTION OF SOLID, LIQUID, AND GASEOUS FUELS IN STATIONARY SOURCES FOR HEAT AND POWER GENERATION | 7-40 |
| 7.4.1 Utility Sector | 7-40 |
| 7.4.2 Industrial/Commercial Sector | 7-51 |
| 7.4.3 Residential Sector | 7-59 |
| 7.5 STATIONARY INTERNAL COMBUSTION | 7-67 |
| 7.5.1 Reciprocating Engines | 7-67 |
| 7.5.2 Gas Turbines | 7-74 |
| 7.6 SECONDARY LEAD SMELTING | 7-79 |
| 7.6.1 Process Description | 7-79 |
| 7.6.2 Benzene Emissions From Secondary Lead Smelters | 7-91 |
| 7.6.3 Control Technologies for Secondary Lead Smelters | 7-95 |
| 7.7 IRON AND STEEL FOUNDRIES | 7-95 |
| 7.7.1 Process Description for Iron and Steel Foundries | 7-97 |
| 7.7.2 Benzene Emissions From Iron and Steel Foundries | 7-100 |
| 7.7.3 Control Technologies for Iron and Steel Foundries | 7-102 |
| 7.8 PORTLAND CEMENT PRODUCTION | 7-103 |
| 7.8.1 Process Description for the Portland Cement Industry | 7-104 |
| 7.8.2 Benzene Emissions from the Portland Cement Industry and Regulatory Analysis | 7-107 |
| 7.9 HOT-MIX ASPHALT PRODUCTION | 7-110 |
| 7.9.1 Process Description | 7-110 |
| 7.9.2 Benzene Emissions from the Hot-Mix Asphalt Production | 7-119 |
| 7.10 OPEN BURNING OF BIOMASS, SCRAP TIRES, AND AGRICULTURAL PLASTIC FILM | 7-121 |
| 7.10.1 Biomass Burning | 7-121 |
| 7.10.2 Tire Burning | 7-125 |
| 7.10.3 Agricultural Plastic Film Burning | 7-129 |

TABLE OF CONTENTS, continued

| <u>Section</u> | <u>Page</u> |
|--|-------------|
| 8.0 BENZENE EMISSIONS FROM MOBILE SOURCES | 8-1 |
| 8.1 ON-ROAD MOBILE SOURCES | 8-2 |
| 8.2 OFF-ROAD MOBILE SOURCES | 8-5 |
| 8.3 MARINE VESSELS | 8-10 |
| 8.4 LOCOMOTIVES | 8-13 |
| 8.5 AIRCRAFT | 8-14 |
| 8.6 ROCKET ENGINES | 8-15 |
| 9.0 SOURCE TEST PROCEDURES | 9-1 |
| 9.1 EPA METHOD 0030 | 9-2 |
| 9.2 EPA METHODS 5040/5041 | 9-4 |
| 9.3 EPA METHOD 18 | 9-5 |
| 9.4 EPA METHOD TO-1 | 9-8 |
| 9.5 EPA METHOD TO-2 | 9-9 |
| 9.6 EPA METHOD TO-14 | 9-14 |
| 9.7 FEDERAL TEST PROCEDURE (FTP) | 9-16 |
| 9.8 AUTO/OIL AIR QUALITY IMPROVEMENT RESEARCH PROGRAM SPECIATION METHOD | 9-18 |
| 10.0 REFERENCES | 10-1 |

APPENDICES

Appendix A Summary of Emission Factors

Appendix B United States Petroleum Refineries: Location by State

LIST OF TABLES

| <u>Table</u> | <u>Page</u> |
|--|-------------|
| 3-1 Chemical Identification of Benzene | 3-2 |
| 3-2 Physical and Chemical Properties of Benzene | 3-3 |
| 4-1 Benzene Production Facilities | 4-2 |
| 4-2 Ethylene Producers - Location and Capacity | 4-17 |
| 4-3 Stream Designations for Figure 4-5, Production of Ethylene from Naphtha and/or Gas-oil Feeds | 4-24 |
| 4-4 Benzene Emission Factors for a Hypothetical Ethylene Plant | 4-33 |
| 4-5 Coke Oven Batteries Currently Operating in the United States | 4-38 |
| 4-6 Summary of Benzene Emission Factors for Furnace and Foundry Coke By-product Recovery Plants | 4-51 |
| 4-7 Summary of Benzene Emission Factors for Equipment Leaks at Furnace Coke By-product Recovery Plants | 4-54 |
| 4-8 Summary of Benzene Emission Factors for Equipment Leaks at Foundry Coke By-product Recovery Plants | 4-56 |
| 4-9 Techniques to Control Benzene Emissions from Equipment Leaks Required by the Benzene NESHAP for Coke By-product Control Recovery Plants | 4-61 |
| 4-10 Control Technologies that Form the Basis of Air Pollution Control Standards | 4-63 |
| 4-11 Other Control Technologies that Can be Used to Meet Standards | 4-64 |
| 4-12 Comparison of VOC Control Technologies | 4-68 |
| 4-13 SOCM I Average Total Organic Compound Emission Factors for Equipment Leak Emissions | 4-72 |
| 4-14 Refinery Average Emission Factors | 4-73 |
| 4-15 Marketing Terminal Average Emission Factors | 4-74 |
| 4-16 Oil and Gas Production Operations Average Emission Factors | 4-75 |

LIST OF TABLES, continued

| <u>Table</u> | <u>Page</u> |
|--|-------------|
| 4-17 SOCMI Screening Value Range Total Organic Compound Emission Factors for Equipment Leak Emissions | 4-76 |
| 4-18 Refinery Screening Ranges Emission Factors | 4-77 |
| 4-19 Marketing Terminal Screening Ranges Emission Factors | 4-78 |
| 4-20 Oil and Gas Production Operations Screening Ranges Emission Factors | 4-79 |
| 4-21 Control Techniques and Efficiencies Applicable to Equipment Leak Emissions | 4-80 |
| 5-1 U.S. Producers of Ethylbenzene and Styrene | 5-4 |
| 5-2 Emission Factors for Ethylbenzene/Styrene Production via Alkylation and Dehydrogenation | 5-15 |
| 5-3 U.S. Producers of Cyclohexane | 5-21 |
| 5-4 U.S. Producers of Cumene | 5-27 |
| 5-5 Summary of Emission Factors for Cumene Production at One Facility Using the Aluminum Chloride Catalyst | 5-36 |
| 5-6 U.S. Producers of Phenol | 5-37 |
| 5-7 Summary of Emission Factors for Phenol Production by the Peroxidation of Cumene | 5-48 |
| 5-8 U.S. Producers of Nitrobenzene | 5-50 |
| 5-9 Summary of Emission Factors for Hypothetical Nitrobenzene Production Plants . . . | 5-54 |
| 5-10 U.S. Producers of Aniline | 5-59 |
| 5-11 U.S. Producers of Mono-, Di-, and Trichlorobenzene | 5-63 |
| 5-12 Emission Factors for Chlorobenzene Production by Direct Chlorination of Benzene | 5-68 |
| 5-13 U.S. Producers of Linear Alkylbenzene (Detergent Alkylates) | 5-71 |

LIST OF TABLES, continued

| <u>Table</u> | <u>Page</u> |
|---|-------------|
| 5-14 Summary of Emission Factors for Hypothetical Linear Alkylbenzene Plant Using the Olefin Process | 5-75 |
| 5-15 Summary of Emission Factors for Hypothetical Linear Alkylbenzene Plant Using the Chlorination Process | 5-79 |
| 5-16 Partial List of Manufacturers in Source Categories where Benzene Is Used as a Solvent | 5-84 |
| 5-17 U.S. Producers of Ethanol or Isopropanol | 5-86 |
| 5-18 U.S. Producers of Caprolactam | 5-89 |
| 5-19 Summary of Emission Factors for Benzene Use as a Solvent | 5-90 |
| 6-1 Benzene and Total Hydrocarbons Equipment Leak Emission Factors for Oil Wellhead Assemblies | 6-3 |
| 6-2 Glycol Dehydration Unit Population Data | 6-6 |
| 6-3 Reactive Organic Compounds (ROCs) and BTEX Emission Factors for Glycol Dehydration Units | 6-9 |
| 6-4 Glycol Dehydration Emission Program Inputs and Outputs | 6-12 |
| 6-5 Potential Sources of Benzene Emissions at Petroleum Refineries | 6-18 |
| 6-6 Concentration of Benzene in Refinery Process Unit Streams | 6-19 |
| 6-7 Concentration of Benzene in Refinery Products | 6-20 |
| 6-8 Median Component Counts for Process Units from Small Refineries | 6-22 |
| 6-9 Median Component Counts for Process Units from Large Refineries | 6-23 |
| 6-10 Model Process Unit Characteristics for Petroleum Refinery Wastewater | 6-25 |
| 6-11 Wastewater Emission Factors for Petroleum Refineries | 6-27 |
| 6-12 Uncontrolled Volatile Organic Compound and Benzene Emission Factors for Loading, Ballasting, and Transit Losses from Marine Vessels | 6-35 |

LIST OF TABLES, continued

| <u>Table</u> | <u>Page</u> |
|---|-------------|
| 6-13 Uncontrolled Total Organic Compound Emission Factors for Petroleum Marine Vessel Sources | 6-36 |
| 6-14 Benzene Emission Factors for Gasoline Loading Racks at Bulk Terminals and Bulk Plants | 6-38 |
| 6-15 Benzene Emission Factors for Storage Losses at a Typical Gasoline Bulk Terminal | 6-41 |
| 6-16 Gasoline Vapor and Benzene Emission Factors for a Typical Bulk Plant | 6-43 |
| 6-17 Benzene Emission Factors for Storage Losses at a Typical Pipeline Breakout Station . | 6-44 |
| 6-18 Gasoline Vapor and Benzene Emission Factors for a Typical Service Station | 6-48 |
| 6-19 RVP Limits by Geographic Location | 6-50 |
| 6-20 Seasonal Variation for Temperature Difference between Dispensed Fuel and Vehicle Fuel Tank | 6-52 |
| 6-21 Monthly Average Dispensed Liquid Temperature | 6-52 |
| 6-22 Summary of Benzene Emission Factors for POTWs | 6-70 |
| 6-23 Summary of Uncontrolled Emission Concentrations of Benzene from Landfills | 6-77 |
| 6-24 Controlled Benzene Emission Factor for Landfills | 6-81 |
| 6-25 Distribution of Kraft Pulp Mills in the United States (1993) | 6-83 |
| 6-26 List of Common Potential Emission Points within the Kraft Pulp and Papermaking Process | 6-84 |
| 6-27 Emission Factors for Synthetic Graphite Production | 6-98 |
| 6-28 Locations and Annual Capacities of Carbon Black Producers in 1994 | 6-100 |
| 6-29 Stream Codes for the Oil-Furnace Process Illustrated in Figure 6-10 | 6-103 |
| 6-30 Typical Operating Conditions for Carbon Black Manufacture (High Abrasion Furnace) | 6-105 |

LIST OF TABLES, continued

| <u>Table</u> | <u>Page</u> |
|--|-------------|
| 6-31 Emission Factor for Carbon Black Manufacture | 6-105 |
| 6-32 Rayon-based Carbon Fiber Manufacturers | 6-106 |
| 6-33 Emission Factor for Rayon-based Carbon Manufacture | 6-108 |
| 6-34 Emission Factors for Aluminum Casting | 6-113 |
| 6-35 Asphalt Roofing Manufacturers | 6-115 |
| 6-36 Emission Factor for Asphalt Roofing Manufacture | 6-128 |
| 7-1 Emission Factor for Medical Waste Incineration | 7-8 |
| 7-2 Summary of Emission Factors for Sewage Sludge Incineration | 7-20 |
| 7-3 Summary of Emission Factors for One Sewage Sludge Incineration Facility Utilizing a Multiple Hearth Furnace | 7-21 |
| 7-4 Summary of Benzene Emission Factors for Hazardous Waste Incineration | 7-38 |
| 7-5 Summary of Benzene Emission Factors for Utility Boilers | 7-50 |
| 7-6 Summary of Benzene Emission Factors for Industrial and Commercial/Institutional Boilers | 7-57 |
| 7-7 Summary of Benzene Emission Factors for Residential Woodstoves | 7-66 |
| 7-8 Summary of Benzene Emission Factors for Reciprocating Engines | 7-73 |
| 7-9 Summary of Benzene Emission Factors for Gas Turbines | 7-77 |
| 7-10 U.S. Secondary Lead Smelters | 7-80 |
| 7-11 Summary of Benzene Emission Factors for Secondary Lead Smelting | 7-94 |
| 7-12 Benzene Emission Factor for Iron Foundries | 7-101 |
| 7-13 Summary of Portland Cement Plant Capacity Information | 7-105 |
| 7-14 Summary of Emission Factors for the Portland Cement Industry | 7-109 |

LIST OF TABLES, continued

| <u>Table</u> | <u>Page</u> |
|---|-------------|
| 7-15 Emission Factors for Hot-Mix Asphalt Manufacture | 7-120 |
| 7-16 Summary of Benzene Emission Factors for Biomass Burning | 7-124 |
| 7-17 Summary of Benzene Emission Factors for Biomass Burning by Fuel Type | 7-126 |
| 7-18 Summary of Benzene Emission Factors for Open Burning of Tires | 7-128 |
| 7-19 Summary of Benzene Emission Factors for Open Burning of Agricultural Plastic Film | 7-130 |
| 8-1 Benzene Emission Factors for 1990 Taking into Consideration Vehicle Aging | 8-4 |
| 8-2 Off-road Equipment Types and Hydrocarbon Emission Factors Included in the NEVES | 8-6 |
| 8-3 Weight Percent Factors for Benzene | 8-11 |
| 8-4 Benzene Emission Factors for Commercial Marine Vessels | 8-12 |
| 8-5 Benzene Emission Factors for Locomotives | 8-13 |
| 8-6 Benzene Content in Aircraft Landing and Takeoff Emissions | 8-14 |
| 8-7 Emission Factors for Rocket Engines | 8-16 |

LIST OF FIGURES

| <u>Figure</u> | <u>Page</u> |
|---|-------------|
| 3-1 Production and Use Tree for Benzene | 3-7 |
| 4-1 Universal Oil Products Platforming (Reforming) Process | 4-8 |
| 4-2 Flow Diagram of a Glycol BTX Unit Process | 4-10 |
| 4-3 Process Flow Diagram of a Toluene Dealkylation Unit | 4-14 |
| 4-4 Toluene Disproportionation Process Flow Diagram (Tatory Process) | 4-15 |
| 4-5 Process Flow Diagram for Ethylene Production from Naphtha and/or Gas-Oil Feeds | 4-22 |
| 4-6 Production of BTX by Hydrogenation of Pyrolysis Gasoline | 4-31 |
| 4-7 Coke Oven By-Product Recovery, Representative Plant | 4-41 |
| 4-8 Litol Process Flow Diagram | 4-45 |
| 5-1 Basic Operations that May be used in the Production of Ethylbenzene by Benzene Alkylation with Ethylene | 5-6 |
| 5-2 Basic Operations that May be used in the Production of Styrene by Ethylbenzene Dehydrogenation | 5-8 |
| 5-3 Ethylbenzene Hydroperoxidation Process Block Diagram | 5-11 |
| 5-4 Isothermal Processing of Styrene | 5-13 |
| 5-5 Process Flow Diagram for Cyclohexane Production using the Benzene Hydrogenation Process | 5-22 |
| 5-6 Process Flow Diagram for Cyclohexane from Petroleum Fractions | 5-25 |
| 5-7 Process for the Manufacture of Cumene Using Solid Phosphoric Acid Catalyst | 5-29 |
| 5-8 Process for the Manufacture of Cumene Using Aluminum Chloride Catalyst | 5-31 |
| 5-9 Flow Diagram for Phenol Production from Cumene Using the Allied Process | 5-40 |
| 5-10 Flow Diagram for Phenol Production Using the Hercules Process | 5-44 |

LIST OF FIGURES, continued

| <u>Figure</u> | <u>Page</u> |
|---|-------------|
| 5-11 Process Flow Diagram for Manufacture of Nitrobenzene | 5-51 |
| 5-12 Flow Diagram for Manufacture of Aniline | 5-60 |
| 5-13 Monochlorobenzene Continuous Production Process Diagram | 5-64 |
| 5-14 Dichlorobenzene and Trichlorobenzene Continuous Production Diagram | 5-66 |
| 5-15 Linear Alkylbenzene Production Using the Olefin Process | 5-73 |
| 5-16 Production of Linear Alkylbenzenes Via Chlorination | 5-76 |
| 6-1 Flow Diagram for Glycol Dehydration Unit | 6-7 |
| 6-2 Process Flow Diagram for a Model Petroleum Refinery | 6-16 |
| 6-3 The Gasoline Marketing Distribution System in the United States | 6-32 |
| 6-4 Bulk Plant Vapor Balance System (Stage I) | 6-54 |
| 6-5 Service Station Vapor Balance System | 6-55 |
| 6-6 Process Flow Diagram for a Typical POTW | 6-61 |
| 6-7 Typical Kraft Pulp-Making Process with Chemical Recovery | 6-85 |
| 6-8 Typical Down-flow Bleach Tower and Washer | 6-92 |
| 6-9 Process Flow Diagram for Manufacture of Synthetic Graphite | 6-95 |
| 6-10 Process Flow Diagram for an Oil-furnace Carbon Black Plant | 6-102 |
| 6-11 Flow Diagram of a Typical Aluminum Casting Facility | 6-109 |
| 6-12 Asphalt Blowing Process Flow Diagram | 6-119 |
| 6-13 Asphalt-Saturated Felt Manufacturing Process | 6-122 |
| 6-14 Organic Shingle and Roll Manufacturing Process Flow Diagram | 6-123 |

LIST OF FIGURES, continued

| <u>Figure</u> | <u>Page</u> |
|--|-------------|
| 7-1 Controlled-Air Incinerator | 7-3 |
| 7-2 Excess-Air Incinerator | 7-5 |
| 7-3 Cross Section of a Multiple Hearth Furnace | 7-12 |
| 7-4 Cross Section of a Fluidized Bed Furnace | 7-14 |
| 7-5 Cross Section of an Electric Infrared Furnace | 7-17 |
| 7-6 Venturi/Impingement Tray Scrubber | 7-23 |
| 7-7 General Orientation of Hazardous Waste Incineration Subsystems and Typical Component Options | 7-27 |
| 7-8 Typical Liquid Injection Combustion Chamber | 7-30 |
| 7-9 Typical Rotary Kiln/Afterburner Combustion Chamber | 7-32 |
| 7-10 Typical Fixed Hearth Combustion Chamber | 7-33 |
| 7-11 Simplified Boiler Schematic | 7-42 |
| 7-12 Single Wall-fired Boiler | 7-44 |
| 7-13 Cyclone Burner | 7-46 |
| 7-14 Simplified Atmospheric Fluidized Bed Combustor Process Flow Diagram | 7-47 |
| 7-15 Spreader Type Stoker-fired Boiler - Continuous Ash Discharge Grate | 7-48 |
| 7-16 Basic Operation of Reciprocating Internal Combustion Engines | 7-69 |
| 7-17 Gas Turbine Engine Configuration | 7-75 |
| 7-18 Simplified Process Flow Diagram for Secondary Lead Smelting | 7-81 |
| 7-19 Cross-sectional View of a Typical Stationary Reverberatory Furnace | 7-84 |
| 7-20 Cross Section of a Typical Blast Furnace | 7-86 |

LIST OF FIGURES, continued

| <u>Figure</u> | <u>Page</u> |
|--|-------------|
| 7-21 Side-View of a Typical Rotary Reverberatory Furnace | 7-89 |
| 7-22 Cross-sectional View of an Electric Furnace for Processing Slag | 7-92 |
| 7-23 Process Flow Diagram for a Typical Sand-Cast Iron and Steel Foundry | 7-98 |
| 7-24 Emission Points in a Typical Iron Foundry and Steel Foundry | 7-99 |
| 7-25 Process Diagram of Portland Cement Manufacture by Dry Process with Preheater | 7-108 |
| 7-26 General Process Flow Diagram for Batch Mix Asphalt Paving Plants | 7-113 |
| 7-27 General Process Flow Diagram for Drum Mix Asphalt Paving Plants | 7-116 |
| 7-28 General Process Flow Diagram for Counter Flow Drum Mix Asphalt Paving Plants | 7-117 |
| 9-1 Volatile Organic Sampling Train (VOST) | 9-3 |
| 9-2 Trap Desorption/Analysis Using EPA Methods 5040/5041 | 9-6 |
| 9-3 Integrated Bag Sampling Train | 9-7 |
| 9-4 Block Diagram of Analytical System for EPA Method TO-1 | 9-10 |
| 9-5 Typical Tenax® Cartridge | 9-11 |
| 9-6 Carbon Molecular Sieve Trap (CMS) Construction | 9-12 |
| 9-7 GC/MS Analysis System for CMS Cartridges | 9-13 |
| 9-8 Sampler Configuration for EPA Method TO-14 | 9-15 |
| 9-9 Vehicle Exhaust Gas Sampling System | 9-17 |

EXECUTIVE SUMMARY

The 1990 Clean Air Act Amendments contain a list of 188 hazardous air pollutants (HAPs) which the U.S. Environmental Protection Agency must study, identify sources of, and determine if regulations are warranted. One of these HAPs, benzene, is the subject of this document. This document describes the properties of benzene as an air pollutant, defines its production and use patterns, identifies source categories of air emissions, and provides benzene emission factors. The document is a part of an ongoing EPA series designed to assist the general public at large, but primarily State/local air agencies, in identifying sources of HAPs and developing emissions estimates.

Benzene is primarily used in the manufacture of other organic chemicals, including ethylbenzene/styrene, cumene/phenol, cyclohexane, and nitrobenzene/aniline. Benzene is emitted into the atmosphere from its production, its use as a chemical feedstock in the production of other chemicals, the use of those other chemicals, and from fossil fuel and biomass combustion. Benzene is also emitted from a wide variety of miscellaneous sources including oil and gas wellheads, glycol dehydrators, petroleum refining, gasoline marketing, wastewater treatment, landfills, pulp and paper mills, and from mobile sources.

In addition to identifying sources of benzene emissions, information is provided that specifies how individual sources of benzene may be tested to quantify air emissions.